WHAT IS CLAIMED IS:

1. A switching device comprising:

a capacitive switch;

a magnetic field source operative to apply a magnetic field across the switch; and

an electrical conductor providing therealong a path of conduction of a current in opposite directions, the electrical conductor being juxtaposed with the capacitive switch and extending transversely to the magnetic field for triggering the capacitive switch between an on- and off-state in accordance with a direction of current flow along the electrical conductor.

2. The switching device of claim 1, wherein the capacitive switch is an electrostatic switch, the switching device being a microelectromechanical Lorentz-force assisted switching device.

3. The switching device of claim 2, wherein the electrostatic switch is configured to have a pull-down electrode continuously supported by a substrate and a bridge straddling the pull-down electrode and being operative to move towards and away from the pull-down electrode in accordance with the direction of current flow along the electrical conductor to selectively set the on- and off-state of the capacitive switch.

4. The switching device of claim 3, wherein the electrical conductor is provided on a top surface of the bridge.

5. The switching device of claim 3, wherein the bridge has a central body elevated above the pull-down electrode in the off-state of the capacitive switch and spaced apart pads coupled to the central body and supported on the substrate.

6. The switching device of claim 5, wherein the bridge further includes multiple hinges having a width narrower than a width of the central body and extending between the central body and the pads.

7. The switching device of claim 3, wherein the bridge and the pull-down electrode overlap one another in the on-state of the capacitive switch, the pull-down electrode being configured to have a one-body component or multiple components spaced apart along the substrate.

8. The switching device of claim 4, wherein the electrical conductor has a frame configured to have a pair of space-apart strips or wires attached to the bridge of the electrostatic switch and end supports bridging the spaced apart strips or wires and formed on the substrate.

9. The switching device of claim 8, wherein the strips or wires and the bridge have at least one projection and indentation, respectively, provided with opposing surfaces which extend complementary to and engage one another to provide the electrical conductor and the bridge with synchronous displacement between the on- and off-state of the electrostatic switch.

10. The switching device of claim 1, further comprising an electric source coupled to the electrical conductor and a magnetic field generating source selected from a permanent magnet or a coil, wherein coupling of the magnetic and electric fields produces Lorentz force directed substantially perpendicular to the magnetic and electric fields.

11. The switching device of claim 10, wherein the electric source generates a pulse-shaped signal, the switching device further comprising a device for reversing the direction of current flow along the electrical conductor.

12. A microelectromechanical system (MEMS) switch comprising:

a substrate;

multiple contacts spaced from one another and supported by the substrate; and

a capacitive switching assembly provided on the substrate and positionable in magnetic and electrical fields extending coplanar with but transversely to one another to

generate a Lorentz force applied to the capacitive switching assembly to selectively short the multiple contacts.

13. The MEMS switch of claim 12, wherein the capacitive switching assembly is an electrostatic switch including

a pull-down electrode fixed to the substrate,

a flexible bridge having opposite ends, which flank the pull-down electrode, and a central body extending between the opposite ends and facing the pull-down electrode, and

a flexible conductor extending on top of and coupled to the bridge so that the coupled flexible conductor and bridge provide a path of conduction of a current between the multiple contacts, the magnetic filed extending coplanar with the flexible bridge but transversely to the path of conduction, whereas the Lorentz force is produced and extends in a plane lying substantially perpendicular to a plane of the flexible bridge.

14. The MEMS switch of claim 13, wherein the coupled flexible conductor and bridge flex synchronously toward the substrate to short the multiple contacts upon directing a current flow along the path in one direction and deflect from the multiple contacts upon reversing the current flow along the path.

15. A microelectromechanical switch operative to selectively couple multiple contacts in response to generation of a Lorentz force.

16. A method for operating a microelectromechanical switching device comprising the steps of:

providing a capacitive switch;

generating an electric field extending in a plane of the capacitive switch; and

generating a magnetic field extending coplanar with but transversely to the electric field and applied across the capacitive switch, thereby producing a Lorentz force applied to the capacitive switch for alternating an on- and off-state thereof.

17. The method of claim 16, further comprising the step of controllably reversing a direction of current flow along the capacitive switch to change a direction of the Lorentz force so that the capacitive switch operates in the on- and off-state in accordance with the direction of current flow along the capacitive switch.

18. The method of claim 17, wherein the step of providing the capacitive switch includes

providing a pull-down electrode on a substrate,

coupling a flexible bridge to the substrate so that opposite ends of the flexible bridge flank the pull-down electrode, and

extending a flexible electroconductive strip along a top of the flexible bridge so that the electroconductive strip and flexible bridge displace synchronously towards and away from the pull-down electrode upon applying the Lorentz force to the coupled flexible bridge and electroconductive strip upon generating the magnetic field.

19. The method of claim 18, wherein generating the magnetic field includes depositing a thin film on the substrate.

20. The method of claim 18, wherein the step of foxing the pull-down electrode includes coupling a plurality of spaced apart electrodes to the substrate.